

## **CLEC MAGAZINE**

YOUNG WRITERS FOR WORLD ECONOMIC CHALLENGES

N.7, DECEMBER 2022

## Game theory and business

Marketing Strategy of Luxury Industry

Things You Need to Know About Fintech

Energy Crisis: The (In)dependence Lesson!

Two parties one goal... importance of healthy competition



AND MANY MORE...



## Contents

4

GAME THEORY AND BUSINESS: ANALYZING STRATEGIC DECISIONS

6
THINGS YOU NEED TO KNOW ABOUT FINTECH

8

LANCASTER'S MODEL AND ITS APPLICATIONS TO THE REALITY

10

È TEMPO DI USARE L'INNOVAZIONE TECNOLOGICA PER IL BENE DELL'UMANITA

12

ENERGY CRISIS: THE (IN)DEPENDENCE LESSON!

15

HISTORY AND MARKETING STRATEGY OF LUXURY INDUSTRY

17

ALLE ORIGINI DELLA MATEMATICA MODERNA: EUCLIDE

20

HOW CAN HELICOPTER MONEY SOLVE THE CURRENT ECONOMIC SITUATION

22

TWO PARTIES ONE GOAL.... OR IMPORTANCE OF HEALTHY COMPETITION

24

**ANNOUNCEMENT** 

## GAME THEORY AND BUSINESS (ANALYZING STRATEGIC DECISIONS)

#### by Angelina Lobanova

Business is a high—stakes game: if you win in business, it does not mean that someone else should be defeated.

In business, a clear understanding of the rules of the market and the behavior of your competitors is of paramount importance. In economics (as well as in the social and political sciences), strategic interactions are modeled using game theory, which includes an assessment and forecast of possible gains and losses, depending on the specific strategy developed.

This method effectively helps to understand the logic of interaction in monopolistic competition and determines where and with whom it is better to compete, and where it is better to start fruitful cooperation.

The birth of Game Theory dates back 1944, when mathematician John von Neumann economist Oscar Morgenstern published the book "Theory of Games and Economic Behavior". In the first edition of the book, the authors systematic approach proposed understanding how players behave in situations where everyone's luck depends on everyone else. They define the search for mutually agreed solutions of zero-sum games for the two sides. (A zero-sum game is a mathematical representation in game theory of a situation involving two parties, where the result is an advantage for one side and a corresponding loss for the other). They also revealed the theory of cooperative games, which analyzes optimal strategies for groups, assuming that they can ensure that agreements on the right strategies are fulfilled.

Game theory deals with the study of conflicts, that is, situations in which it is necessary to work out some kind of solution concerning all participants and considers two types of games. Non-cooperative games, where each player acts independently of the others and tries to maximize its gain but making assumptions on other players' behavior. Cooperative games where the parties – coalitions – can coordinate their efforts to reach the best possible outcome.

To manage business everyone will follow their self-interest. But the main conclusion of game theory is that in order to fulfill your interest you have to look at the game from someone else's point of view. Thus, putting yourself in the place of others and starting to think like them, you need to think not only about what others will give you, but also about what you will give them.

Nowadays, the method is successfully used in connection with modeling situations related to calculating the behavior of individuals, assessing the possibility of winning or losing depending on the chosen strategy.



One of the most important concepts in game theory is that of Nash Equilibrium. It refers to a stable state in a game where no player can gain an advantage by unilaterally changing their strategy, assuming that other participants also do not change their strategies. The Nash equilibrium provides a system of solutions in a non-cooperative game that can be assimilated to the concept of constrained profit maximization. One of the most common examples of Nash equilibrium is the prisoner's dilemma. The prisoner's dilemma basically provides a foundation for understanding how to find a balance between collaboration and rivalry.

A classic example of a prisoner's dilemma in the real world occurs when two competitors share a market (the so-called duopoly). For example, in the USA there is intense competition between Coca-Cola and Pepsi in the production of soft drinks. Each of the two firms has similar market share for a price-sensitive commodity.

The two firms have to choose their price and make an assumption about the price of the competitor. Each firm can choose to price low or high. If Coca Cola choses low prices then Pepsi will choose low as well because otherwise it would lose market share and get low profits. Alternatively, if Coca Cola choses a high price, Pepsi will choose a low price and get a higher market share and higher profits. However, this strategy is not feasible as Coca Cola will anticipate the choice of Pepsi and not chose to price high. Thus, the only stable solution, the Nash Equilibrium, is with both firms pricing low.

However, there is a better outcome given by both firms choosing a high price. In this case, their market share would be the same as in the Nash Equilibrium but profits would be higher. How to get to this superior outcome? Only through cooperation: the two firms will agree on a high price.

Alternatively, custom and knowledge of the market might lead to this choice. There are options not only in the spirit of "our victory is their loss", but also beneficial for everyone. Since winning at the expense of competitors' losses often leads to a retaliatory strike.

The strategy of lowering prices in order to increase their market share can give an advantage, but only temporarily: if others also lower prices to regain their lost market share, there will be nothing left of the purchases. As a result, the market will recover the previous balance of power, but at lower prices. This is how the scenario of universal destruction reveals itself. The important issue is that without formal or informal cooperation the only equilibrium is the non-cooperative one which is inferior to the cooperative one.

Therefore, game theory studies interactive decision-making, where the outcome for each participant depends on the actions of all. If you are a player in such a game, then when choosing your course of action or "strategy" you should consider the choices of others. Due to changes in the nature of activities, conditions, behavior and cultural characteristics, there is no magic plan of action. It is necessary to consider the specific features and developments of a particular market, in order to avoid possible mistakes, from which no one is insured.

The lesson of cooperation is important not only in economics but also in politics, social sciences and international relations. Whenever coutnries and politician cooperate it is easier to reach a better outcome!

So game theory provides an approach for solving problems with full knowledge and understanding of what, to whom and how best to present a product, a service, or to achieve positive results for the society as a whole.



## THINGS YOU NEED TO KNOW ABOUT FINTECH

by Firehiwot Bekele

We are in the midst of a 4th Industrial Revolution —where the 5G network, artificial intelligence, robotics, & the Internet of things are transforming the customer experience. Thanks to Fintech, instant transactions have already become the norm in the purchase of goods and services, and in financial transactions.

Fintech is a combination of finance and technology. It began with the mission to innovate and change the financial service industry in this digital age. Fintech innovations are very present in our day-to-day lives and we are using them without giving them much thought: from making mobile money payments to taking out digital loans and crowdfunding.



Source: https://www.ifse.ca/what-is-fintech/

Fintech history dates back to the 1860s when a device known as pentelegraph was developed to verify signatures by banks. The setting up of electronic fund transfer through Telegraph & Morse code in 1918 by Fedwire led to the first baby step in the digitalization of money. Diner's Card in 1950 was the first honest effort to make payments cashless although it was limited to restaurant payments. This was followed by the introduction of Credit cards by Amex in 1958. With the introduction of Screen based stock data by Quotron in 1960, the financial market took a huge stride. This evolution of the financial sector experienced a slowdown after 2008. Due to the financial crisis banks have been hit by strict regulation with fines and oversight, thus they dropped the ball and slowed down innovation.

Consequently, the ball was taken by small startups which started springing up with the aim to disrupt the various aspects of traditional banking and innovate around that using digital data & mobile technology to give customers a better all-around experience.

Mobility, 24/7 availability of services, lower service and transaction costs, accessibility, speed, convenience, and multiple-channel interactions have made fintech's financial services much easier compared to legacy banking, resulting in increasing popularity. Currently, there are around 2 billion people globally who still don't have access to a bank account and fintech is bringing financial services to those people giving them a chance to save, send and borrow without having to meet the lengthy requirements of the traditional banks. The world fintech data shows that customers are attracted by low-cost offerings (70%), ease of use (68%), and faster service (54%).

The fintech industry, however, has its own shortcomings: lack of physical branches to solve problems; risky data security with fintechs that don't use blockchain as a differentiator; low or no access to the Internet in some developing countries; and lack of regulation are the main ones.

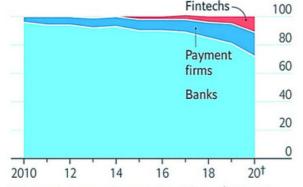
Let's see more in detail what are the domains of fintech

- Paytech- focuses on transactions and payments.
- Regtech- focuses on regulatory management, monitoring, reporting, and compliance processes.
- Lendtech- allows lenders to connect to borrowers with unprecedented ease.
- Banktech- facilitates a bank's digital strategy. Insurtech- designed to disrupt and make the current insurance model more efficient.
- Wealthtech- concerned with wealth management & investment.

Among these domains, the Paytech industry is growing rapidly every year due to the steady increase in digital payments and the Covid pandemic encouraging consumers to stay away from cash. About 28% of the global top 50 financial tech companies work on Lendtech. Three other popular types of fintech companies are Wealthtech, Paytech, and Insurtech.

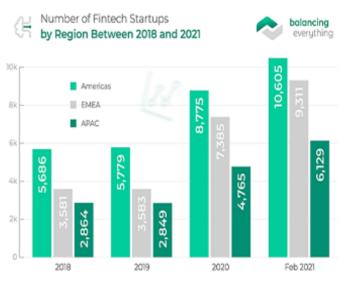
North America has the most fintech startups. According to the data from Statista (2022), as of February 2022, there are 10,605 financial services startups in the North American region. By contrast, there are 9,311 of them in EMEA (Europe, Middle East, Africa) and 6,129 in APAC (Asia-Pacific).

## Chipping away Top 500 global banks, payment and fintech firms\* Share of market capitalisation, %



\*Estimated value used for private fintech firms †At Oct 7th Sources: Bloomberg; CB Insights; CNBC; Finextra Research; Reuters; Economic Times of India; Wall Street Journal; The Economist

Fintech companies and their consumer-first approach have proven attractive to both investors and customers and hence the fintech industry is among the fastest-growing worldwide with an average annual growth rate of nearly 25%. Most millennials prefer to do their banking digitally and have mobile wallets from non-banking financial institutions. Millennials also use peer-to-peer lending in large numbers, which has increased the popularity of the fintech industry. Such adaptation is among the drivers of the sector's rapid growth.



Source: Statista

Banks seek to provide an outstanding customer experience at lower costs and drive margins. To enable this, digitalization is important. Thanks to partnering with financial tech companies, through investing in online and mobile banking, along with adopting a more customer-centric attitude, banks also provide tools that enhance the user experience. Chatbots, digital banking, and Al assistants are examples of such technologies.

Customers are now so used to being able to access their financial services and they want a seamless mobile experience whether they are dealing with a small company or a large institution. Hence, I believe that collaboration between fintech and banks can achieve better results and provide us with the best products and services.

"Technological innovations will be the heart and blood of the banking industry for many years to come and if big banks do not make the most of it, the new players from Fin-Tech and large technology companies surely will." – David M. Brear

## LANCASTER'S MODEL AND ITS APPLICATION TO THE REALITY

by Vanessa Petrarca

In economics, according to the Neoclassical theory, consumer's preferences can be represented by a utility function, where the consumer trying to maximize his/her utility, given a budget constraint, tries to better allocate the goods to purchase.

Beyond the mainstream school, there is the approach developed by Lancaster in 1966, which is grounded on the same assumption of the Neoclassical model: seeking the best allocation of goods given an "affordability constraint".

The main difference is that, in the Lancaster's model, the satisfaction of the consumer is not obtained by the consumption of the good itself, but by the attributes of the goods purchased: these characteristics are measurable and quantifiable by the consumers; if not, there are third parties which ensure the presence of demanded characteristics.

Given a budget constraint, which reflects the number of attributes affordable for the consumers, it is possible to derive an *efficient consumption frontier*, which provides the combination of products' features, that maximizes the utility of the individual. Consumer's optimal choice will correspond to the tangency point between the individual's indifference curve and the efficient consumption frontier.

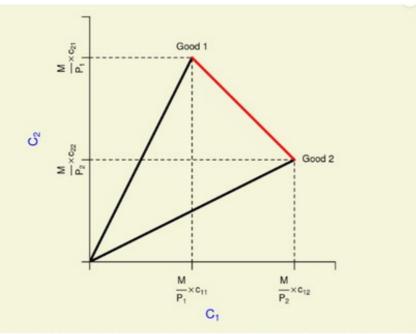


Figure 5.3.1: The efficient consumption fronteir (in red) for two characteristics,  $C_1$  and  $C_2$ .

The graph represents the efficient consumption frontier (in red) for the allocation of two characteristics, C1 and C2.

It should be said, that considering the recent developments of the demand for goods, the Lancaster's model might explain the need of consumers to obtain a value bundle, able to satisfy their needs.

Indeed, nowadays, together with the product purchased, consumers want services integrated within it, and this is a perfect practical explanation of the model.

The model is used to describe *horizontal* and *vertical product differentiation*, which are used by businesses to differentiate their own products from the competitors'. In particular, *vertical differentiation*, refers to the differentiation of products based on the attributes owned (e.g., product A owns more attributes than product B, so the consumer given its budget, decides to purchase product A the choice strongly depends on the price); instead, *horizontal differentiation* refers to the differentiation of products which have same attributes in different proportions (e.g., product A is made by 80% of attribute 1 and by 20% of attribute 2, while product B is made by 30% of attribute 1 and 70% of attribute 2 the choice strongly depends on the consumers' preferences).

A good example of application of the Lancaster's model (in the case of a vertical differentiation) might be the case in which a consumer chooses which mobile phone to purchase: usually an Oppo product has also fewer and lower quality features respect to an Apple product. The consumer which decides to buy an iPhone wants the characteristics of that product, which satisfy him/her better than the characteristics of an Oppo.

This can be supported by the study conducted by Fernandez-Castro and Smith in 2002, where the product under analysis was the car, with the characteristics of interest being power, fuel efficiency, silence, boot space and interior space.

An example of horizontal differentiation, instead, might be the choice between apples and oranges, which provide the consumer with different levels of Vitamin A, C, Potassium and Fibers.

By summarizing, beyond the Neoclassical model, there are other theories, one of which is the one developed by Lancaster, that is a different approach, perhaps better able to explain consumers' choices.



Kelvin John Lancaster (10 December 1924 – 23 July 1999) was an Australian mathematical economist and John Bates Clark professor of economics at Columbia University.

Sources: Michael R. Thomsen, AN INTERACTIVE TEXT FOR FOOD AND AGRICULTURAL MARKETING; Fernandez-Castro, A.S., Smith, P.C., 2002, "Lancaster's Characteristics Approach Revisited: Product Selection using Non-parametric Methods", Managerial and Decision Economics, DOI: 10.1002/mde.1048

### È TEMPO DI USARE L'INNOVAZIONE TECNOLOGICA PER IL BENE DELL'UMANITA

di Giulia Romagnoli

È tempo di usare l'innovazione tecnologica per il bene dell'umanità - questo il focus dell'inaugurazione del nuovo hub territoriale su innovazione e sostenibilità di Salemi (TP), svoltasi lo scorso 7 ottobre a Cassino. L'inaugurazione è stata organizzata dal Comitato di Ateneo per lo Sviluppo Sostenibile (CASe) all'interno del Festival dello Sviluppo Sostenibile 2022, con la partecipazione della Banca Popolare del Cassinate, partner principale per la promozione del nuovo Hub. La conferenza ha visto gli interventi di Cosmano Lombardo (fondatore e CEO di Search On Media Group e ideatore del WMF il più grande Festival sull'Innovazione Digitale del Pianeta), Vincenzo Formisano (Presidente della Banca Popolare del Cassinate), Francesco Ferrante (Responsabile Scientifico di ImprendiLab Unicas), Marcello De Rosa (CASe), Marco Lotito (Innovation Manager WMF - Hubitat), Francescantonio Della Rosa (General Manager La Mia Energia), Vito Scalisi (Assessore del Comune di Salemi con delega Politiche Giovanili e Europee) e Chiara Buongiovanni (Advocacy Officer Social Impact Agenda per l'Itàlia).

Il nuovo Hub territoriale di Cassino nasce dalla collaborazione tra WMF e ImprendiLab Unicas e si inserisce nel progetto HUBitat, rete di hub sull'innovazione sostenibile nei borghi italiani che mira a promuovere la cultura, la formazione sul digitale, la tutela dell'ambiente, il turismo e la valorizzazione del territorio a beneficio delle imprese e della Empowerment ' femminile, cittadinanza. strategie digitali, sostenibilità, imprenditorialità, incubazione per startup vengono messe al centro delle scuole di formazione dei singoli hub per formare gli imprenditori del futuro, oltre a coworking per favorire lo smart working nei borghi e percorsi di esposizione di progetti tecnologici a impatto sociale.

I diversi approfondimenti presentati dai relatori hanno messo al centro la valorizzazione del territorio e la necessità di portare avanti una transizione tecnologica che deve essere prima di tutto sociale. Quest'ultimo è proprio uno tra i principali obiettivi di HUBitat.

Per parlare di sviluppo dei territori, però, bisogna prima parlare della distribuzione delle risorse. I dati più recenti ci dicono, infatti, che i livelli di benessere sia a livello nazionale che europeo hanno subito una polarizzazione, una divergenza.



Questo è stato il punto di partenza dell'intervento del Professor Francesco Ferrante, che ha posto l'accento su come l'utilizzo inefficiente delle risorse sia oggi un problema fondamentale della nostra società. Questa emergenza sociale dovrebbe condurre all'individuazione di meccanismi bottom-up che contribuiscano a una distribuzione più adeguata ed efficiente delle risorse, nonché alla valorizzazione degli asset territoriali.

In questo contesto, risulta importante menzionare le cosiddette Comunità Energetiche Rinnovabili (CER) quali soggetti giuridici costituiti da persone fisiche, PMI, enti territoriali o autorità locali in grado di fornire benefici ambientali, economici e sociali ai suoi azionisti o membri o alle aree locali in cui operano.

Le CER rappresentano, infatti, soluzioni di ingegneria sociale volte a modificare il vecchio paradigma, favorendo quindi il passaggio da una produzione di energia che parte dall'alto e viene poi distribuita sul territorio (top-down) a una produzione diffusa e decentrata (bottom-up) da parte di diversi soggetti che assumono il ruolo di prosumers, ossia produttori e consumatori.

Secondo il Report Comunità Rinnovabili 2022 di Legambiente, attualmente risultano attive circa 39 comunità energetiche sul territorio italiano e circa 7000 a livello mondiale. In Italia, la normativa è ancora in stasi in termini di incentivi. Tuttavia, queste soluzioni innovative rappresentano un ottimo esempio ingegneria sociale per risolvere l'emergenza ambientale ed energetica, nonché un'opportunità per favorire al tempo stesso la coesione sociale e la valorizzazione territoriale. Un piano energetico basato sull'energia distribuita e sulla condivisione finalizzato a portare il costo dell'energia a zero - ha affermato durante il suo intervento il Dottor Francescantonio Della Rosa, General Manager



In questo scenario risulta centrale il ruolo della rete HUBitat che si pone proprio come supporto per rendere efficace ed efficiente la valorizzazione delle risorse del territorio.

Il Professor Ferrante ha ribadito quanto questo progetto possa giovare al Basso Lazio, anche grazie al supporto a livello di conoscenze che essere fornito da ImprendiLAB, laboratorio per la promozione dell'innovazione dell'imprenditorialità е dell'Università di Cassino e del Lazio Meridionale. ImpendiLAB che svolge attività di imprenditoriale formazione accompagnamento alla creazione di impresa al promuovere di l'occupabilità l'imprenditorialità di studenti e laureati e la collaborazione con enti pubblici e privati per lo sviluppo di un ecosistema socio-economico abilitante.

sull'importanza Ulteriore intervento progetto HUBitat per il territorio è stato quello di Vito Scalisi, assessore del Comune di Salemi con delega Politiche Giovanili ed Europee. L'Assessore ha posto l'accento sulle vaste opportunità che il territorio siciliano mette a disposizione. Per questo molte aziende hanno orientato i propri investimenti nell'installazione di impianti di energia rinnovabile fotovoltaici ed eolici in quelle aree. Queste nuove tecnologie, se gestite in modo efficiente, possono rappresentare un ritorno sia a livello economico sia sul piano dell'occupazione e della valorizzazione culturale e territoriale.

Centrale è il ruolo assunto da progetti come HUBitat che sono volti alla creazione di interesse nella comunità, alla formazione e alla divulgazione di conoscenze in ambito energetico, tecnologico e non solo. Tramite queste iniziative i cittadini si rendono maggiormente consapevoli, vengono coinvolti nel processo di transizione e si fanno promotori di quelle strategie di bottom-up necessarie per favorire il cambiamento.

All'importanza di diffondere conoscenze a livello di comunità, si aggiunge la necessità di provvedimenti a livello governativo. Procedimenti legislativi più snelli per l'adozione e l'installazione di queste nuove tecnologie sono, infatti, fondamentali per ottenere un ritorno immediato in termini di energia, benefici socioeconomici e occupazionali.

Solo attraverso la combinazione tra queste variabili l'innovazione tecnologica potrà favorire la transizione e giovare alla valorizzazione culturale e territoriale della nazione, identificandosi così come un bene per l'umanità.

## ENERGY CRISIS: THE (IN)DEPENDENCE LESSON!

by Angelina Nikitiuk

#### **INTRODUCTION**

The historical events that every people have witnessed today will change our lives, society, and the economy, especially the main part of it - the energy sector. History shows that energy does not stand still, develops, and falls along with everything that happens around it.

Before moving on to a discussion of what is happening now, let's recall the historical events of the past, and what impact they had on the field of energy.

### ENERGY CRISES AND CHANGES IN THE ENERGY SECTOR OF THE PAST

Analyzing data on global energy consumption, one can see that until the mid-1960s, coal was the main source of energy. But even then, the share of oil in energy consumption was rapidly increasing.

Oil consumption starts to grow in the early 20th century, especially in the field of transport, with the development of the automobile sector, the reconversion of ship engines, and the aviation boom after World War I. [1]

After the Second World War, there were many expectations for the nuclear power industry, which was just beginning to flourish at that time. A full transition from oil to nuclear power would be a step forward toward a relatively clean future. However, no major changes have taken place. The failure of nuclear energy is mainly determined by the cost of construction, which increased after the Chernobyl accident, as the requirements for ensuring the safety of plants became stricter. [2, 3] The costs of maintenance and decommissioning nuclear power plants were also much higher in comparison with the cost of generating electricity by using fossil fuels.

In addition to this, the transition of the whole world to nuclear energy would not allow each state to get rid of dependence, since uranium reserves are owned by a small number of countries. Finally, nuclear energy is not entirely clean and carbon neutral.

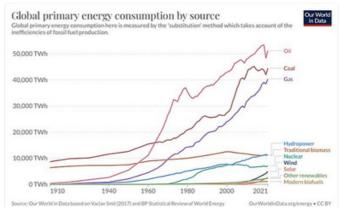


Figure 1.Global primary energy consumption by source

Despite the fact that the development of the world economy could no longer be imagined without nuclear energy, oil and gas have remained the main sources of energy.

In the post-World War II period, there have been two major oil crises. [4]

The first of which was the Oil Shock of 1973-1974. It was a period of skyrocketing energy prices and fuel shortages resulting from an embargo by Arab oil-producing countries in response to US support for Israel during the Yom Kippur War. Throughout this time, the price of a barrel of oil has nearly quadrupled in less than a year.

At that time, oil-importing countries for the first time learned the cost of dependence on one energy supplier. Although the embargo was lifted in early 1974, this was one of the many complicating factors that led to a decade of high inflation and stagflation in the United States and Europe in the 1970s.

The second Oil Crisis occurred in 1979 as a result of the Iranian Revolution (1978–1979). The Iranian oil industry suffered great damage and this led to large production losses and a corresponding increase in prices. Turmoil in Iran, a major petroleum exporting country, caused the global supply of crude oil to decline significantly, triggering noteworthy shortages, and a surge in panic buying. [5]

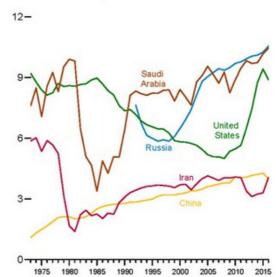
Sources: [1] https://ourworldindata.org/grapher/global-energy-consumption-source?; [2] https://www.iaea.org/sites/default/files/28304780912.pdf;w.europarl.europa.eu/RegData/etudes/BRIE/2016/581972/EPRS\_BRI(2016)581972\_EN.pdf

[3] https://ww.time=1910..latest ; [4] https://www.investopedia.com/1973-energy-crisisdefinition-5222090 ; [5] https://www.britannica.com/topic/oil-crisis The energy crisis of the 1970s was a turning point for Soviet society. Rising oil prices around the world prompted the USSR to start exporting oil. And Russian energy resources were very attractive to Europe due to a number of factors:

- Russia had the largest reserves of oil and gas
- ease of transportation
- availability
- stability
- cheapness.

This was the beginning of the West's dependence on Russian energy resources.[7]

Until 2022, Russia together with Saudi Arabia and the US, shared the top 3 largest oil producers in the world. But with Russia's full-scale invasion of Ukraine, the European Commission approved REPowerEU, a plan to accelerate the withdrawal of Russian energy carriers. This plan provides for additional investments in energy in the amount of 210 billion euros until 2027.



Selected Producers, 1973-2016

Figure 2. Top oil-producing countries 1973-2019 (million barrels per day) [6]

#### **CHANGES IN THE ENERGY SYSTEM**

The EU is trying to transform its energy system as quickly as possible for two main reasons. First, it will end the EU's dependence on Russian fossil fuels, which are used as economic and political weapons. Secondly, it will help solve the problem of the climate crisis.

Speaking about energy independence, it is important to understand that renewable energy sources are of fundamental importance. Because this is the only way to obtain energy without importing raw materials but using sources that are available to each state.

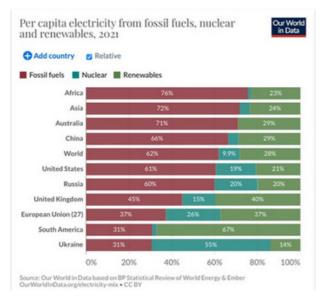


Figure 3. Per capita electricity from fossil fuels, nuclear and renewables, 2021

One can observe a positive trend of a smooth transition to green energy sources already now. Thus, data on electricity production for 2021 show that the share of renewable energy in the world is already higher than the share of nuclear energy. [8]

Obviously, despite all the positive aspects of green energy, there are also negative aspects of it. Green energy sources are fickle and unpredictable, so they require batteries to operate.

Some types of such batteries have been developed for a long time and are already functioning at full capacity, for example, a «water cell» type plant is present near Cassino, in Presenzano. Or the Swiss "water battery" with a capacity of 20 million kWh, which took 14 years to develop. But there are also new types of batteries, for example, the world's first sand battery, developed in Finland. The sand battery does not allow electricity to be stored and returned but generates heat with electricity and stores it for a long time to be used to heat homes.[9]

Sources: [6] https://www.eia.gov/totalenergy/data/monthly/archive/00351705 pdf [7] https://www.washingtonpost.com/business/energy/how-europe-became-so- dependent-on-putin-for-its-gas/2022/07/26/f8a95d16-0d07-11ed-88e8-c58dc3dbaee2\_story.html; [8]https://ourworldindata.org/electricity-mix; [9] https://www.bbc.com

Among other developments of countries to independently provide themselves with electricity, the following are worth mentioning: the Spanish Francisco Pizarro photovoltaic plant, capable of providing electricity to 334,000 homes; the wind farm installed in Holland, that consists of 140 11 MW turbines, the largest ever to be installed at scale; Swedish Bio-LBG plant, which upon commissioning by the end of 2023, will generate 120GWh of biogas for domestic purposes and so on. [10][11][12]

As for Italy, in the short term, preparations for winter 2022-2023 have become the top priority. The country has filled its gas storage, partially replacing supplies from Russia with pipeline imports from Algeria and Azerbaijan and LNG imports from Qatar, Algeria, and the USA. (You can see how Europe's LNG imports have changed over the year in figure 4).

In the medium term, the government aims to get rid of dependence on Russian gas by the second half of 2024. To achieve this, it is planned to further diversify gas supplies, bring new floating storage and regasification units (FSRUs) for liquefied natural gas and accelerate the development of renewable energy sources.

In the medium term, the government aims to get rid of dependence on Russian gas by the second half of 2024. To achieve this, it is planned to further diversify gas supplies, bring new floating storage and regasification units (FSRUs) for liquefied natural gas and accelerate the development of renewable energy sources.

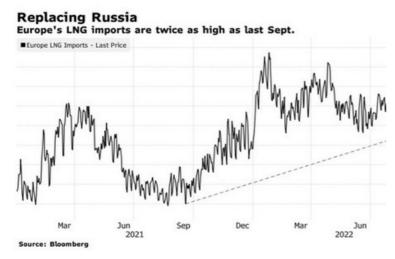


Figure 4. Europe's LNG imports [13]

Three regasification terminals are already in operation in Italy, located in Panigaglia, Livorno and Rovigo. Gas network operator Snam has acquired three additional FSRUs by government order, one located in Piombino and expected to be operational in spring 2023, one in Ravenna scheduled to be operational in 2024, and one in Portovesme.

In the National Resilience and Recovery Plan (NRRP), Italy has devoted €59 billion to incentivise renewables between 2021–2026. In particular, the state plans to abandon coal by 2025 and increase the share of renewable energy sources in the final gross electricity production to 72% by 2030 and to 95-100% by 2050.

In November 2020, the state also launched a national hydrogen strategy to help decarbonize the economy and meet European climate targets. [14]

#### CONCLUSION

The lesson learned by the world in the 1970s left a mark on history, but did not make countries think about the danger of dependence. Dependence not only on a single supplier country, but also limitations within one type of energy source.

However, the terrible lesson that all people are experiencing now will radically change the world. Already at the moment, one can see confident steps in the desire of countries to independently provide themselves with the necessary energy resources. Largely in order to eliminate the risk that someone will use these resources as a weapon.

sources: [10] https://www.iberdroia.com/about-us/what-we-do/solar-photovoltaic-energy/francisco-pizarro-photovoltaic-plant ; [11] nttps://group.vattenfall.com/press-and- media/newsroom/2022/first-wind-turbine-installed-in-hollandse-kust-zuid ; [12] nttps://scandinavianbiogas.com/en/projects-2/monsteras/ ; [13] https://www.bloomberg.com/news/articles/2022- 09-27/italy-secures-enough-supplies-for winter-without-gas-from-russia ; [14] https://www.trade.gov/country-commercial-guides/italy-natural-gas-renewable-energy

### HISTORY AND MARKETING. STRATEGY OF LUXURY INDUSTRY

by Zhaniya Sovetkhanova

#### **HISTORY**

According to statistics provided by Stanford Graduate School of Business, luxury industry has been one of the least affected by the Pandemics. So, what makes them so special? How was this industry established? And how is their marketing operating? We all know that luxury goods have always been part of people's life. Fossils and excavation of buried people who lived 1000s years ago are witnesses to the social division in terms of wealth and power that existed at that time. High society people were distinguished by their horses, golden war tools, ships etc. In early Greece, in Roman Empire, and in Egypt luxury items were only found among high society classes or among royal families. In ancient Greece the word "luxury" was considered by some groups of people equivalent to lavishness and arrogance. Even some religious groups stated that there can't be coexistence between "luxury" and "morality". However, things have changed 180 degrees since that time. Nowadays the luxury industry has evolved. It became more democratized and no longer exclusive or extraordinary. The concept of word "luxury" is anticipated by contemporary people distinctively comparing with people of last centuries. Luxury is now considered a goal, a dream, a form of recognition and a symbol of high quality.

Luxury has gradually invaded the modern economy and producers of these goods started to become

famous worldwide.

The **figure** shows a clear evolution of this industry in the post industrial revolution

1) At the beginning of 20th Century, French fashions houses (Louis Vuitton, Cartier, Hermès) were established to serve nobility and the emerging upper bourgeoisie.

2) Between World War 1 and 2, Chanel, Balenciaga, Prada, Gucci, Fendi entered an expanding market as a result of the increase in the standards of leaving in Western countries.

3) After World War 2, the luxury sector took

off and became an industry in its own right, appearing as a "niche" version in many specialized sectors.

Nowadays the luxury industry is no longer for elites only. Its development is based on a particular marketing strategy. Let's analyze it in detail.

1.**Positioning.** Some luxury brands can be called dream builders. They are not comparative. In comparison with premium brands, they tend to leak information of some functions in their marketing strategy. Premium strategy is about pay more, get more. Functionality is a key, because it enables consumers to benchmark and compare with different functionalities and brands. The best example of premium brand is Hugo Boss. Hugo Boss's brand strategy is divided into two sub-brands, namely Hugo and Boss. Hugo is young and hipster, while Boss is more mature and premium. Luxury products do not aim to meet specific need or solve a problem. The prestige, heritage and unique nature of brand are essential in luxury brands. Plenty of brands set their strategy in between luxury and premium. That is why it is hard to differentiate.

LOGO	BRAND	SINCE
HERMES	HERMĖS	1837
(1)	Cartier	1847
V	LOUIS VUITTON	1854
Œ	CHANEL	1910
PRADA	PRADA	1913
88	BALENCIAGA	1916
(3)	GUCCI	1921
B	FENDI	1925
O	Salvatore Ferragamo	1935
Œ	Dior	1946
89	GIVENCHY	1952
*	WesSaint/aurent	1961
•	Vivienne Westwood	1971
w	GIORGIO ARMANI	1975
	VERSACE	1978
D&G	DOLCE & GABBANA	1985

#### **MARKETING STRATEGY**

2.**Quality**. Although luxury products are expensive and high quality, they are not flawless. Watches could be the best example for that. There are two sort of watches: mechanic and quartz. The biggest flaw of mechanic watches is that they are not as accurate as quartz watches. People buy mechanic watches because of their craftsmanship.

3.**Advertising**. The role of advertising in the luxury context is not to sell. Instead of emphasizing some functionalities of the products, they usually provide or demonstrate a pure visual. The aim is to build up brand awareness. In addition to that, they keep reminding consumers that this is the dream you are chasing for. Luxury customers are normally educated customers. They are ready to pay more but getting much more. Luxury sets price, but price does not set luxury. This is also a reason why people confuse expensive products for luxury goods. It depends on brands' positioning. In luxury, when an imagined price is higher than the actual price, it creates value. If we do not have an idea of the price range for luxury brands, we might guess it to be higher than its actual price. This is exactly the endeavor that luxury brands are doing, to make us feel that products are valuable. The price of luxury goods will be raised by certain percentage every year. By doing so, luxury brands are also creating even more value for products. Luxury strategy is mainly about value creation, namely building up dreams. Dreams have a dimension of nonaccessibility yet remaining at a close distance. Hence, it is important to create an approachable dream.



4. **They do not follow anyone**. Luxury brands are independent from market. They work in their own way, by not following anyone. There are a lot of "don't"s. Don't test, don't look for consensus, don't look after group synergies, don't pamper your customers' wishes, and don't reply to rising demand. Luxury brands need to lead the market and consumers not the other way round. Since luxury brands put themselves at the center, chances are high that celebrities might outshine the brand in advertisements. This is what luxury brands want to prevent at all costs. They always tend to outshine celebrities who are used for advertisements.

5.**They do not test**. If we look at some luxury brands such as Prada, Tods, and Bottega Veneta their origin is Italy. It might be easy for people to connect the country of origin of the brands. By remaining in Italy, they are easily identified as being produced in country which is famous for its specialization in luxury. That's why they are not leaving their country of origin.

6.Art. Connection between art and luxury is close. Luxury brands do not like to follow anyone and prefer to be curators of taste. They seek to be creative, bold and different. Hence, the decision to keep themselves away from popular art. Instead, they gravitate towards art that suggests timelessness such as classical art. Art enthusiasts are the favourite customers of luxury brands. That's why luxury brands are making every effort to keep non-enthusiasts out. They need someone who share wholeheartedly their values. Although luxury brands like enthusiasts they tend to lower accessibility.

7.**Value facets**. Luxury has two value facets - luxury for oneself and luxury for others. To sustain the latter facet, there should be many more people that are familiar with the brand than those who could possibly afford to buy it for themselves. The distinction between luxury, fashion and premium strategy of prestige brands operating on the luxury market is crucial. Since the purchase needs time and effort to be deserved

#### **CONCLUSION**

To wrap up all, it can clearly be seen that luxury industry has always been part of people's life and it is impossible to deprive this sector from our daily life. Concept of word "luxury" has changed tremendously due to right marketing and management strategy. And this makes luxury industry sustainable in economic and business market.

### ALLE ORIGINI DELLA MATEMATICA MODERNA: EUCLIDE

di Francesca Paesano

Un professore chiese ad un certo punto:"Ma voi sapete chi è stato il vero e proprio padre della geometria e della matematica moderna?". Facce impietrite dall'altra parte. "Pitagora", prova ad accennare qualcuno. "Pensateci meglio". "Euclide", esclamazione in coro dopo un attimo di esitazione. "Bene! Sapete che la statistica ha radici antiche e dall'uso fortemente pratico, ma qualcuno sa da quando e con chi possiamo iniziare a pensare alla statistica con accezione matematica?". Nessuno alza la mano. Dopo qualche minuto di imbarazzante silenzio il prof. sospira e dice: "Siamo agli inizi del '900, in Russia, con il matematico Andrei Nicolaevič Kolmogorov". Da un momento di vita quotidiana e di ordinaria ignoranza verso la storia della Matematica, viene fuori questo articolo. Le figure vi verrano presentate entrambe, cosicché sarete pronti (almeno voi) la prossima volta che qualcuno vi farà domande analoghe.

La storia della matematica attraverso i secoli è piena di grandi nomi. Tra questi spicca quello del matematico e filosofo greco Euclide, considerato il "Padre" della Geometria. Si tratta di uno dei pochi matematici dell'antichità che sia riuscito a riunire tutte le sue conoscenze in un'unica opera: gli Elementi Euclide getta le basi della matematica moderna. Sono varie e vaste le aree della matematica profondamente radicate nelle sue scoperte.

La biografia di Euclide non è ben documentata, come avviene per altri filosofi-matematici suoi predecessori. Ciò che conosciamo del matematico ateniese deriva dalla sua opera "Gli elementi", scritta intorno al 300 a.C. Nel XV secolo era il secondo testo più letto dopo la Bibbia. Quest'opera riscuote successo ancora oggi. Solo pochi altri scritti, redatti molto tempo dopo la sua morte, ne forniscono un quadro ancora non del tutto completo.

#### Gli Elementi

L'opera gli Elementi è suddivisa in 13 libri sulla geometria piana e aritmetica. Le conoscenze di Euclide riversate all'interno di essa si basano su auelle già acquisite da altri matematici dell'antichità. Triangoli, linee, cerchi popolano le sue pagine. Euclide dimostra le proposizioni (tra cui il famoso teorema di Pitagora), introduce le sottrazioni ripetute e il concetto di massimo comun divisore (MCD). In questo contesto, non sorprende che si parli anche di "divisione euclidea" (più comunemente conosciuta come "divisione con resto").

Si dice che Euclide conducesse degli "esperimenti scientifici" per provare e dimostrare nuovi teoremi. Tuttavia, per quanto riguarda la creazione di un metodo scientifico vero e proprio bisognerà attendere il XVI-XVII secolo, con le opere di Cartesio, Galileo Galilei e Isaac Newton.

I contenuti della sua opera

Negli Elementi, opera magna di Euclide, vengono fornite una serie di dimostrazioni geometriche. I primi sei libri sono dedicati alla geometria piana. Vi si trovano informazioni sui triangoli, sui parallelogrammi, sul teorema di Pitagora, sulle figure piane, sulle proprietà del cerchio (e sull'esistenza di figure inscrivibili nel cerchio), sulla costruzione di un pentagono e sulle relazioni tra grandezze.

I tre libri successivi non sono più dedicati alla geometria piana, ma all'aritmetica. In essi Euclide tratta i numeri primi, la costruzione del massimo comun divisore, i numeri interi, i numeri comuni di due interi, i numeri in sequenza geometrica e la costruzione dei numeri perfetti. Tuttavia, anche in questi testi lo scienziato introdusse il procedimento della sottrazione ripetuta e successiva, noto anche come divisione euclidea.

Il decimo libro è dedicato alle quantità irrazionali, mettendo in discussione il principio dell'assolutezza dei numeri, fortemente sostenuto da Pitagora. Gli ultimi tre libri sono dedicati alla geometria dello spazio. Essi trattano la costruzione di oggetti come la sfera, i solidi regolari, la piramide, il cubo, l'ottaedro, il dodecaedro e l'isocaedro.

#### Le Geometrie Non-Euclidee

In breve, gli Elementi sono il manuale per eccellenza della matematica antica e non. Anche se diversi secoli dopo la sua diffusione è stato parzialmente messo in discussione. In particolare il quinto postulato di Euclide, che ha dato vita alle cosiddette "Geometrie non Euclidee", ovvero alla negazione o non accettazione di questo e altri postulati. Il quinto postulato è oggi presente nella seguente forma "Per un punto esterno ad una retta data passa una e una sola parallela alla retta data", ma appariva inizialmente più complesso e meno immediato.

Questo postulato può essere visualizzato nella figura n.1. "m" è una generica retta del piano. Viene selezionato il punto A che non giace sulla retta m, non le è quindi appartenente. Intuitivamente, provando a disegnare varie rette passanti per questo punto, ognuna con una propria inclinazione, l'unica parallela che si troverebbe è f.

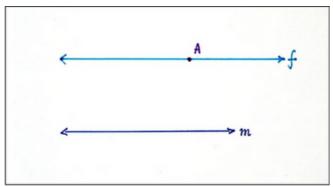


Figura n.1

Alcuni dei principali matematici che hanno dato vita a una geometria alternativa a quella di Euclide:

Bernhard Riemann: nella geometria riemanniana, il problema delle parallele non si pone. Il concetto di retta è sostituito con la curva geodetica, ossia il percorso di minor distanza tra due punti. Questo tipo di geometria nasce dalla negazione del quinto postulato di Euclide, sostituendolo con quello che oggi viene indicato come assioma di Riemann: "Due rette qualsiasi di un piano hanno sempre almeno un punto in comune". La prima conseguenza ovvia è la non esistenza delle rette parallele. Il sistema della geometria di Riemann si basa sull'ipotesi che lo spazio sia finito. A differenza dello spazio euclideo, la retta si comporta come una linea chiusa: la sua lunghezza è finita pur essendo illimitata (ovvero la si potrebbe percorrere all'infinito).

Il postulato e i presupposti della geometria Riemanniana sono mostrati all'interno della figura n.2. Si può così verificare facilmente che per due punti ellittici passa una sola retta e che due qualunque rette ellittiche hanno sempre un punto in comune. Nella figura a destra le due "rette" AC e BC hanno il punto C in comune.

Eugenio Beltrami: A partire dai risultati di Riemann, Eugenio Beltrami costruisce un modello in carta di una superficie a curvatura costante negativa, la pseudosfera iperbolica. Essa soddisfa gli assiomi della geometria iperbolica e utilizza la superficie di un cilindro come modello equivalente ad un piano euclideo. La geometria iperbolica si ottiene modificando il quinto postulato, nel modo seguente: "Data una retta r e un punto P disgiunto da r, esistono almeno due rette distinte passanti per P e parallele a r".

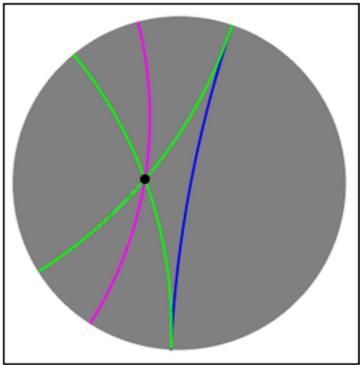


Figura n.3

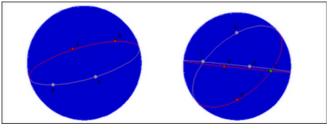


Figura n.2

La modifica al quinto postulato è mostrata nella figura n.3. Presa una retta (blu scuro) e un punto non appartenente a essa, esistono almeno due rette passanti per quel punto che non intersecano la retta. La realtà è che se ne potrebbero tracciare infinite.

Henri Poincaré: Poiché il modello di Beltrami era valido solo localmente, Henri Poincaré introdusse un modello valido globalmente di geometria iperbolica. Lo spazio è un disco, le cui rette sono archi di circonferenza o segmenti di retta perpendicolari al bordo del disco: il modello prende il nome di disco di Poincaré. Gli angoli formati fra due rette sono quelli usuali, ma la distanza fra due punti è definita in modo differente: questa tende a infinito quando uno dei due punti viene spostato verso il bordo del disco. I punti nel bordo sono quindi "punti all'infinito".

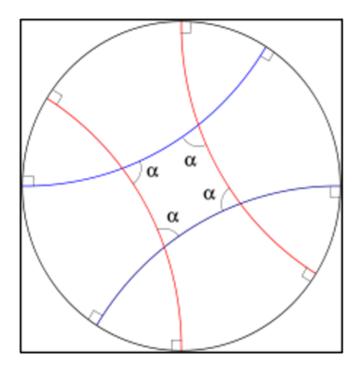


Figura n.4

Nel disco di Poincaré le geodetiche sono archi di circonferenza (o retta) ortogonali al bordo. Gli angoli sono quelli formati dalle tangenti. Nella figura n.4, quattro rette delimitano un quadrilatero con tutti gli angoli uguali.

Il disco di Poincaré non è uno spazio completo. Infatti uno spazio completo in R è necessariamente chiuso. La proprietà di completezza può anche essere verificata dal fatto che le geodetiche complete hanno lunghezza infinita.

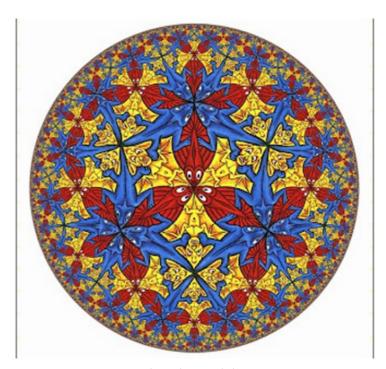


Figura n.5: Mauritis Cornelis Escher, Circle limits 1

L'artista olandese Maurits Cornelis Escher, basò la sua produzione di stampe e quadri sulla geometra iperbolica e sul disco di Poincarè. Escher, dopo lunghi tentativi insoddisfacenti di rappresentare l'infinito, trovò risposta al suo problema quando conobbe il modello di Poincaré del piano iperbolico, basato sulla negazione del V postulato di Euclide.

Con questo articolo ho risposto solo alla prima domanda posta del professore in quell'afosa giornata di fine Agosto. Per approfondimenti sulla prossima risposta, continuate a leggere CLEC. Presto arriverà...

#### To be continued...

Font

Enciclopedia Treccani-Geometria Euclidea; G.Ottaviani- "Gli elementi" di Euclide; Università degli studi di Bologna per Progetto Matematica- L'arte iperbolica;
Enciclopedia Treccani-Fugenio Beltrami: Università degli studi di Bologna per Progetto Matematica- Georg Bernhard Riemann

### HOW CAN HELICOPTER MONEY SOLVE THE CURRENT ECONOMIC SITUATION

by Vanessa Petrarca

The whole economic world is suffering from the current crisis, due to the post-pandemic hard recovery and also due to the impact of the Russian invasion of Ukraine, and the subsequent war (and the energy-price crunch).

The economies are falling, with decreasing levels of real GDP and unemployment and increased levels of inflation (for instance, in the U.S.A., inflation rates in September 2022 were over 8%, which is a rate way above the healthy inflation range), expected to be increasing even more.

Decreasing levels of GDP will be reflected through a decline in consumption and this will further worsen the situation.

The situation in the EU is even worse: due to the proximity with the war borders and the strong reliance on Russian gas and energy, the region is suffering with inflationary pressures and decreasing levels of output. The Autumn 2022 European Commission Economic Forecast shows that inflation is expected to increase in the end of the year, and to start declining in 2023, while GDP growth rates are expected to be lower and lower.

The solutions for a complete recovery, applicable all over the advanced economies, should come either from the Central Governments or by the Central Banks, with respectively fiscal and monetary policies, to stimulate the demand and spur the economy, in the situation in which recession has started.

A policy which might be considered is the Helicopter Money, thought by Milton Friedman, which is an unconventional money-financed fiscal policy, that requires both the intervention of the government and the central bank.

The idea came from the concept of throwing money from the sky, which instead is not the case.



"Let us suppose now that one day a helicopter flies over this community and drops an additional \$1,000 in bills from the sky, which is, of course, hastily collected by members of the community. Let us suppose further that everyone is convinced that this is a unique event which will never be repeated."

-Friedman, 1969

It basically is a non-repayable funding issued by the Central Bank, where the central bank transfers a portion of credit to the government (which implies that the central bank would purchase a portion of government's debt). It could be implemented as tax cuts associated with purchases of government debt, or also as transfers directed to businesses and households.

Helicopter money might be considered as an effective policy, if it dropped perishable money, (Buiter, 2016) meaning that people would be forced to spend money rather than saving it (and this would in turn boost the aggregate demand), otherwise it would not have purchasing power.

<sup>[1]</sup> Healthy inflation refers to the inflation, accepted by policymakers, below or equal to 2%: in this case, this rate is beneficial for the economic growth of the area.

According to some economists, this framework should only be applied in emergency situations, and perhaps this would be the case, of implementing it in the current recession, which is being experienced by the whole economic world.

However, the introduction of this policy might not be possible (Baldwin, Weber di Mauro, 2020) because of:

- practical implementation challenges, i.e., the need to quickly establish the size of the support measure.
- legal problems, related to the principle of central bank independence from the government.
- greater inflationary effects as consequence.

So, what could be a reasonable and effective solution?

According to my point of view, it is a powerful tool which could be applied, only with the conditions of money being perishable, and with careful checks on the portion of the population receiving this stimulus. It would be a good experiment, allowing for on-field analysis, which would give a great contribution to the literature. However, the helicopter money, should be followed by monetary and fiscal coordination to protect central bank independence and to avoid hyperinflation (Reis, Tenreyro, 2022).



https://www.economist.com/ https://www.statista.com/ https://www.thebalancemoney.com/ https://ec.europa.eu/commission/presscorner/de il/en/ip\_22\_6782
Reichlin, L., Turner, A., Woodford, M., 2013, "Helicopter money as a policy option", CEPR Press VoxEU.org
Buiter, W.H., 2016, "The Simple Analytics of Helicopter Money: Why It Works — Always", http://dx.doi.org/10.5018/economics- ejournal.ja.2014-28
Baldwin, R., Weder di Mauro, B., 2020, Mitigating the COVID Economic Crisis: Act Fast and Do Whatever It Takes, "EPR Press VoxEU.org", pp. 57-62
Benigno, P., Nisticò, S., 2022, "The Economics of Helicopter Money", DiSSE Working papers, ISSN 2385-2755
Reis, R., Tenreyro, S., 2022, "Helicopter money: what is it and what does it do?"

# TWO PARTIES ONE GOAL... OR IMPORTANCE OF HEALTHY COMPETITION

#### by Aisaltan Emil

There is no doubt that universities are focused on programs, contents, curricula, accreditations, and rankings. However, not all of them think about the importance of creating students' associations.

Realizing the importance of these associations for the purpose of bringing students together, helping them acclimate with the university environment and connecting them to other students, not one, but two such communities were created at the University of Cassino.

#### PRIMAVERA STUDENTESCA



The name of the first organization is probably known to all students: "Primavera Studentesca". It was founded about 10 years ago in spring, which explains the reason for the name of this party. Across these years "NOI SIAMO VOI!" which literally means "WE ARE YOU!" is the main slogan of "Primavera Studentesca" and there are several facts proving that this is not just an empty slogan. During this time many activities have been performed both within and outside the university.

The following is only a small **list of initiatives** that this association has done for students over the years:

- A solidarity initiative towards all women consisting in providing sanitary pads boxes in university bathrooms.
- Opening a study room at the university where students can study, interact with each other, and prepare group projects.
- Participation in charity activities to help indigent families in Cassino.
- Organizing free training courses (graphic design, BLSD, math, etc.) for all the students of UNICAS in Italian.
- Having a representative body that collaborates with Lazio Disco, undoubtedly helps students on the difficult path to obtaining a scholarship.

#### **GUARDIANI UNIVERSITY**



If we are speaking about a second association called "Guardiani University", we can notice that in comparison to the previous institution, it is a younger organization has it's been established around 4 years ago. Despite its short existence "Guardiani University" demonstrated its impact in many areas such as:

- Organizing social events to stimulate interaction between students.
- Establishing free Italian courses accessible for international students who want to improve their Italian skills.
- Development of the first UNICAS digital assistant responding to every student 24/7 in Telegram messenger. (You can find this digital assistant by typing the name "@gigiounicas\_bot". Currently, it is available in Italian, but English-speaking assistant is under development, hopefully, it will be available very soon.
- Sharing important news with students in both Italian and English.

Despite displaying the above diversity of actions, they have many things in common. Above all, both bodies help in organizing welcoming days for freshman students, social occasions, trips to many cities of Italy, informing students about upcoming news on social media, etc.

### COMPETITION AS AN EFFECTIVE WAY OF ACHIEVING RESULTS

It is not a secret that the existence of both parties may create a competition between each other. The term "competition" suggests that there's a clear winner and a loser, but if competition is friendly, it could be seen a strong advantage, as long as both parties work to push one another toward a similar goal, regardless of who the actual winner is. "Healthy competition between friends inspires both sides to do their absolute best," says Dr. Nikole Benders-Hadi , psychiatrist at Rockland Psychiatric Center in Orangeburg, New York. [1]

Encouraging healthy competition between the two parties is undoubtedly a good thing. Therefore, the leaders of both organizations should make sure that each team has clear expectations and that everyone is working

expectations and that everyone is working towards achieving both individual and team goals. This allows to remain motivated, inspired focused on the goal of making our university a better place

When we engage in competition, two things happen our brains. First, it triggers the release of the feel-good hormone – Dopamine, which is involved in neurological and physiological functioning, and it is a contributing factor to motor function, mood and decision-making. Second, competition boosts the capacity for learning as also shown by a study [2] published in Frontiers in Psychology. This makes sense because it sharpens the skills needed for winning. As mentioned before, competition genuinely motivates organizations' representatives to reach their goals.

Either "Primavera Stundesca" or "Guardiani University" have the same purpose, therefore it is very important to stay on one side rather than to be hostile to each other. Yes, sometimes there has to be a winning and losing team and it can be a challenge to see the positive aspects of a perceived loss.

Nonetheless, the ability to get up off the canvas, dust us off, reflect on performance and come back stronger is the mark of a real winner. Losing gracefully is an important skill that only comes with experience, that is why it is crucial to have a healthy environment for all members of both organizations and remember that we all are a big family of UNICAS.

An excellent example of merging forces and achieving common goals date back to February 2020, when representatives of the two student associations requested the mayor of Cassino Enzo Salera to reduce the rate of public parking for off-site students and equalize it to the rate paid by residents. Thanks to both organizations now international students can enjoy parking places without paying an extra rate.

As the university becomes more and more international, the number of students coming from abroad also increases. Moving to a new country, and encountering a new culture, language, customs and rules is a difficult moment for a student who decided to challenge herself/ himself to get better opportunities in life. Being a member of one of these student clubs, I strongly believe that students can benefit from joining "Primavera Studentesca" or "Guardiani University". Both organizations can help students create

connections, build relationships, and expand their skills and connections gained from participating in different events outside the lecture hall. Moreover, associating with student clubs creates a feeling of being a member of a big and friendly family.

Thanks to the existence of both associations' university life seem joyful, bright, easy, and more interesting.



We are pleased to introduce you to a new member of the team.

### ANGELINA LOBANOVA



"I am an international Economics and Business' student from Russia. When I was a little girl I started doing art gymnastics and ballet. And in my teenage years I started playing tennis. These hobbies taught me how to be in a team, and also gave me the opportunity to see the world. Since then, I have continued to travel solo to get to know other cultures around the world better. I believe that studying economics will help me understand how countries live, in addition to what we can see with our eyes."

## THE CLEC MAGAZINE TEAM

#7th issue

#### **STAFF WRITERS**

Ludovica Apostolico

Firehiwot Bekele Ejigu

Domenico Cavicchia

Alessio Tomba

Zhaniya Sovetkhanova Angelina Nikitiuk Vanessa Petrarca Angelina Lobanova

#### **EDITOR-IN-CHIEF**

Angelina Nikitiuk

#### **COVER DESIGN**

Yuvraj Argal

#### **GRAPHIC DESIGN**

Angelina Nikitiuk Zhaniya Sovetkhanova

#### **EXTERNAL CONTRIBUTORS**

**Francesca Paesano - ex** *udentessa UNICAS ed editor-in-*

studentessa UNICAS ed editor-inchief CLEC

Giulia Romagnoli - Ph.D student

in Economia, Imprese e Comportamenti Aisaltan Emil - 3-year student in Economics and Business

#### DIRECTOR

Prof. Piero Esposito

#### **VICE DIRECTOR**

Prof.ssa Cinzia Di Palo

#### WITH THE SUPPORT OF

Ufficio Comunicazioni UNICAS

#### FIND US BY FOLLOWING THIS LINK:

If you are a student of the course in Economics and Business and you want to send us your article, write to this email address: clecmagazine@unicas.it

Se vuoi inviare un tuo articolo al giornale e sei uno studente del CdL in Economia e Commercio/ Economics and Business, questo è il nostro indirizzo mail: clecmagazine@unicas.it







©Università degli Studi di Cassino e del Lazio Meridionale